

In the Claims

Applicant has submitted a new complete claim set showing marked up claims with insertions indicated by underlining and deletions indicated by strikeouts and/or double bracketing.

1. (Currently Amended) A method of simulating an audio effect processor comprising ~~the steps of~~:

- a) storing an impulse response of the audio effect processor for each of at least two impulses;
- b) repeatedly assessing a characteristic of an input signal;
- c) selecting at least one of the impulse responses to apply to the input signal in dependence on the result of the assessment; and
- d) applying the selected impulse response to the input signal to derive an output signal[[.]];

wherein storing an impulse response comprises storing at least two sets of digital samples representing the at least two impulse responses, and applying the selected impulse response comprises convolving each of a set of digital samples representing the assessment of the characteristic of the input signal with said at least two sets of digital samples representing the selected impulse response appropriate to the characteristic, to give a second series of digital samples representing the output signal.

2. (Canceled)

3. (Currently Amended) A method according to claim 1 in which ~~the step of~~ assessing a characteristic of the input signal comprises assessing its amplitude.

4. (Currently Amended) A method according to claim 3, in which ~~the step of~~ selecting an impulse response to apply to the input signal comprises determining whether the amplitude of the input signal is above or below a predetermined threshold.

5. (Currently Amended) A method according to claim 3, in which ~~the step of~~ selecting an impulse response to apply to the input signal comprises determining whether or not the amplitude of the input signal falls within a predetermined range, applying more than one impulse response to the input signal if the result of the determination is that the amplitude of the input signal does fall within the predetermined range and deriving the output signal therefrom.

6. (Original) A method according to claim 5, in which the more than one impulse responses applied to the input signal are applied in proportions which sum substantially to 1.

7. (Original) A method according to claim 6, in which the proportions of the impulse responses applied to the input signal are dependent on the position of the amplitude of the input signal within the predetermined range.

8. (Currently Amended) A method according to claim 1 in which ~~the step of~~ selecting an impulse response to apply to the input signal further comprises the step of detecting a user input and selecting the impulse response in dependence thereon.

9. (Currently Amended) A method according to claim 1 in which ~~the step of~~ selecting an impulse response to apply to the input signal comprises the step of monitoring a time dependent variable and selecting an impulse response in dependence thereon.

10. (Currently Amended) Apparatus for simulating an audio effect processor comprising:

- (a) means for storing an impulse response of the audio effect processor for each of at least two impulses;
- (b) means for repeatedly assessing a characteristic of an input signal;
- (c) means for selecting at least one of the impulse responses to apply to the input signal in dependence on the result of the assessment; and
- (d) means for applying a selected impulse response to the input signal to derive an output signal;

wherein the means for storing the impulse response comprises means for storing at least two sets of digital samples representing the respective impulse responses and the means for applying the stored impulse response comprises means for convolving each of a first series of digital samples representing the assessment of the characteristic of the input signal with the selected set of digital samples representing the selected impulse response, to give a second series of digital samples representing the output signal.

11. (Cancelled)

12. (Currently Amended) Apparatus according to claim 11 in which the means for assessing the characteristic of the input signal comprises means for assessing the amplitude of the input signal.

13. (Original) Apparatus according to claim 12 in which the means for selecting an impulse response to apply to the input signal comprises means for determining whether the amplitude of the input signal is above or below a predetermined threshold.

14. (Original) Apparatus according to claim 12 in which the means for selecting an impulse response to apply to the input signal comprises means for determining whether or not the amplitude of the input signal falls within a predetermined range and the means for applying more than one impulse response to the input signal does this if the result of the determination is that the amplitude of the input signal is within the predetermined range.

15. (Original) A method according to claim 14 in which the more than one impulse responses applied to the input signal are applied in proportions which sums substantially to 1.

16. (Original) Apparatus according to claim 15 in which the proportions of the impulse responses applied to the input signal are dependent on the position of the amplitude of the input signal within the predetermined range.

17. (Currently Amended) Apparatus according to claim 1110 in which the means for selecting an impulse response to apply to the input signal further comprises means for detecting a user input to which the selecting means is responsive.
18. (Currently Amended) Apparatus according to claim 1110 in which the means for selecting an impulse response to apply to the input signal comprises means for monitoring a time dependent variable to which the selecting means is responsive.
19. (Previously Presented) A method according to claim 1, wherein the method further comprises simulating a plurality of different audio processors and storing the impulse response for the plurality of different audio processors.
20. (Previously Presented) Apparatus according to claim 10, wherein the apparatus is capable of simulating a plurality of different audio processors; and wherein the means for storing stores impulse responses for the plurality of different audio processors.
- 21-22. (Canceled)